

7075-T6 1.750 X 4.500

Work Order ID 95527

95527

Page 1

January 11, 2013 8:12:04 AM

Item ID: 647.9316

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Crossbar Bracket

Start Date: 1/11/13

Start Qty: 3.00

3

Cust Item ID:

Required Date: 1/25/13

Req'd Qty: 3.00

3

Customer:

Reference:

Approvals:

Process Plan: CLDate: 13/01/11

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Draw Nbr	Revision Nbr	Description	QTY	Unit	Unit Price	Total Price	Material	Reject	asn.
647.9300									

101

Cut blanks as per folio

0.00

101

Bandsaw

Memo

0.00

Jeaspa Bandsaw

CUT TO 12.00" LONG

110

0.00

110

Outsource5

Memo

0.00

Outsource process - Machining

ISSUE P/O: 19277
POSSIBLE SUPPLIER: ARCHER

Certificate of conformaty required

115

Receive & Inspect for Damage & Mat'l Certs

0.00

115

Packaging

Memo

0.00

Packaging

3

113-03-

1/3/14 (3)

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:25%;">Skid-tube <input type="checkbox"/></td> <td style="width:25%;">Crosstube <input type="checkbox"/></td> <td style="width:25%;">Water Jet <input type="checkbox"/></td> <td style="width:25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>																								
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>																								
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>																								
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																									
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector																		
Doc/Data <input type="checkbox"/>																											
Equip/Tooling <input type="checkbox"/>																											
Operator <input type="checkbox"/>																											
Material <input type="checkbox"/>																											
Setup <input type="checkbox"/>																											
Other <input type="checkbox"/>																											
Process <input type="checkbox"/>																											
Supplier <input type="checkbox"/>																											
Training <input type="checkbox"/>																											
Unapproved <input type="checkbox"/>																											

FAULT CATEGORY									
Landing Gear			General						
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong						
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

Work Order ID 95527

95527

Page 2

January 11, 2013 8:12:04 AM

Item ID: 647.9316

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Crossbar Bracket

Start Date: 1/11/13 Start Qty: 3.00

3

Cust Item ID:

Required Date: 1/25/13 Req'd Qty: 3.00

3

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
117 *117* QC Quality Control	QC6- Inspect dimensions to drawing Memo	0.00 DAS 27 9-89 13/12/16				3			
180 *180* Packaging Packaging	Identify as per dwg & Stock Location: <u>ST410</u> Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***	0.00 0.00				3X	DAS 28 9-89	14-02-3	P10
190 *190* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00						MCS 14-02-04 ① 14-02-04	

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: <u>95527</u> Part No. <u>674-9316</u> NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input checked="" type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%; font-size: small;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>		118		Outsource Anodize and prime Issue P/Bi 22580		C214/01/10 x3			
Operator <input type="checkbox"/>		119		Receive and inspect		P214/01/30 (3)			
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>		120		QC 5					
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

Picklist Print

January 11, 2013 8:12:03 AM

Page 1

Work Order ID: 95527

Parent Item: 647.9316

Parent Item Name: Crossbar Bracket

Start Date: 1/11/13

Required Date: 1/25/13

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP REV:A NEW ISSUE 12-11-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.9316P		Purchased	No				Each	0.0000		3			
Crossbar Bracket													
M7075T6B1.750X04.500		Purchased	No				f	12.0400		3			
7075 T6 BAR 1.750" X 4.500"													

Location: MAT 1000
124030

Loc Qty: 12.04
12.04

Loc Qty: 12.04

124383

3

1/13/13

LB-2-21

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

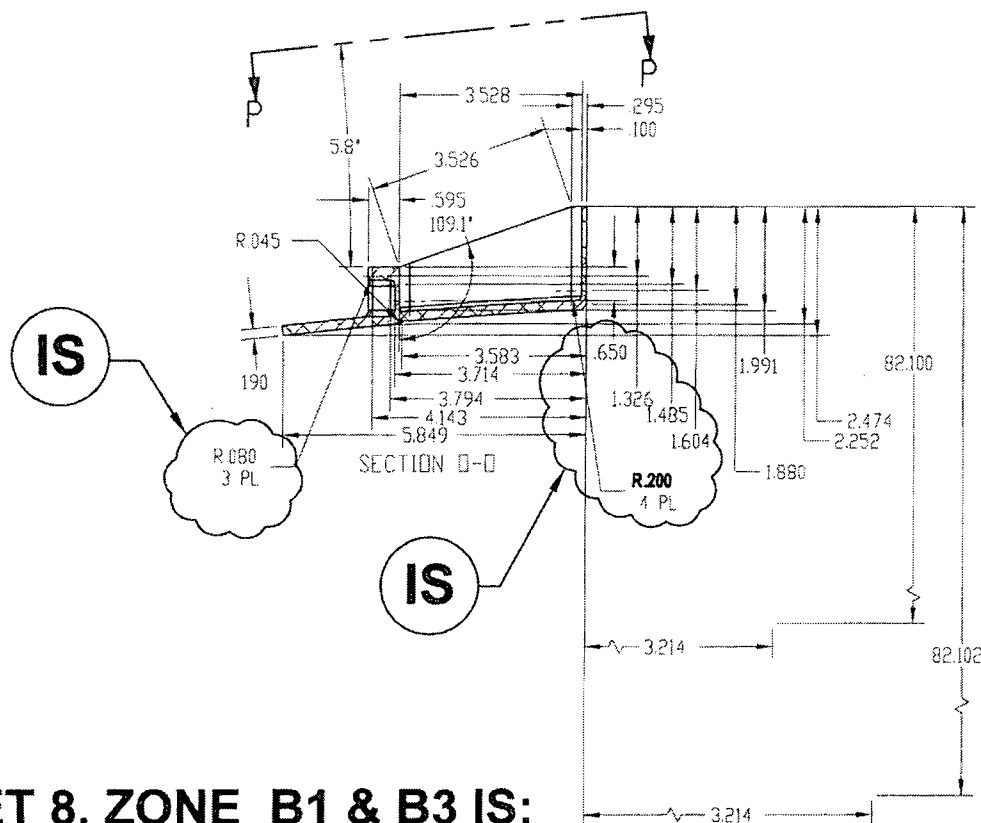
Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

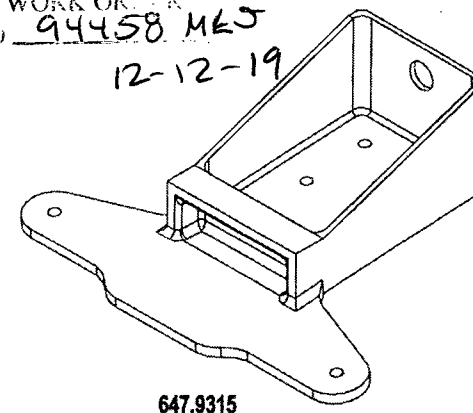
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03706				SHEET 1 OF 2	
	DWG NO. 647.9300	REV: N/C	PREPARED BY B. PETERS	DATE: 11/16/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: BRACKETS					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED RADII ON 647.9315.				EGR: D-12-012	

SHEET 1, ZONE B4, NOTE 10 IS:

10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRJT, LAST MODIFIED 11-16-12.



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER NO. 94458 MLEJ
12-12-19



SHEET 8, ZONE A7 IS:

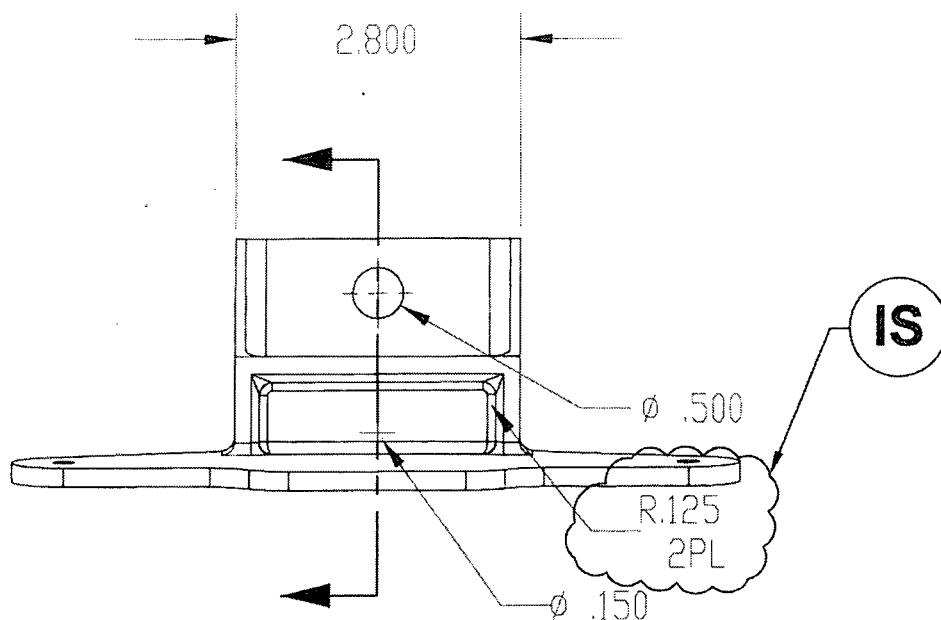
DOCUMENTS EFFECTED:	<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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94458

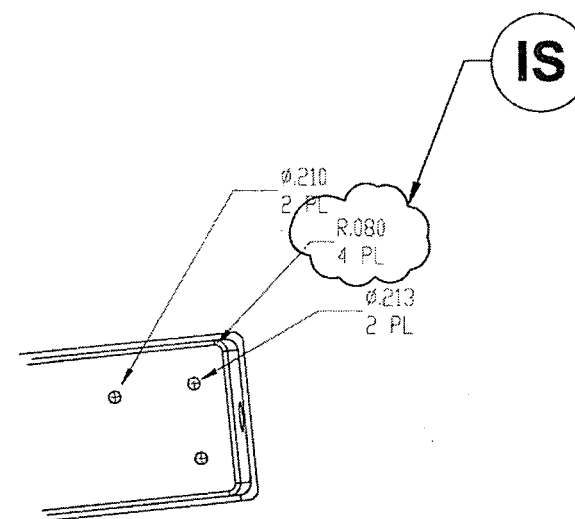
APICAL INDUSTRIES, INC.

ENGINEERING CHANGE ORDER NO. 03706

SHEET 2 OF 2



SHEET 8, ZONE B6 IS:



SECTION P-P

SHEET 8, ZONE B8 IS:

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

APICAL
INDUSTRIES, INC.

SHEET 1 OF 2

PREPARED
BY A. QUAN

EFFECT ON DWG
<input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.

DWG TITLE: BRACKET

MFG

EFFI	CURRENT ORDER AND STOCK
------	-------------------------

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED HOLE LOCATIONS ON 647.9314, ADDED HOLE 647.9315

SHEET 1, ZONE B3:

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 7075-T651 PER AMS-CC-A-25012.

2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR: BLACK;
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J TYPE I, CLASS N

2. DEBURR AND BREAK ALL SHARP EDGES

4 IDENTIFY JAW MPP-120 LASER ENGRAVE CENTURY COINIC, 12 POINT P/N AND REVISION

△ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 6429310 CH BRACKET SL DPRT. LAST MODIFIED: 06-22-10

△ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 642930 SUPPORT BRACKET SUPPLY, LAST MODIFIED 06-22-10

PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 6429312-BRACKETSLDRPT, LAST MODIFIED 06-22-10

8 PART DIMENSIONS CONTROLLER AT CAD MODEL FILE: 2479313 BRACKET.SHPRT. LAST PRINTED 06-22-11

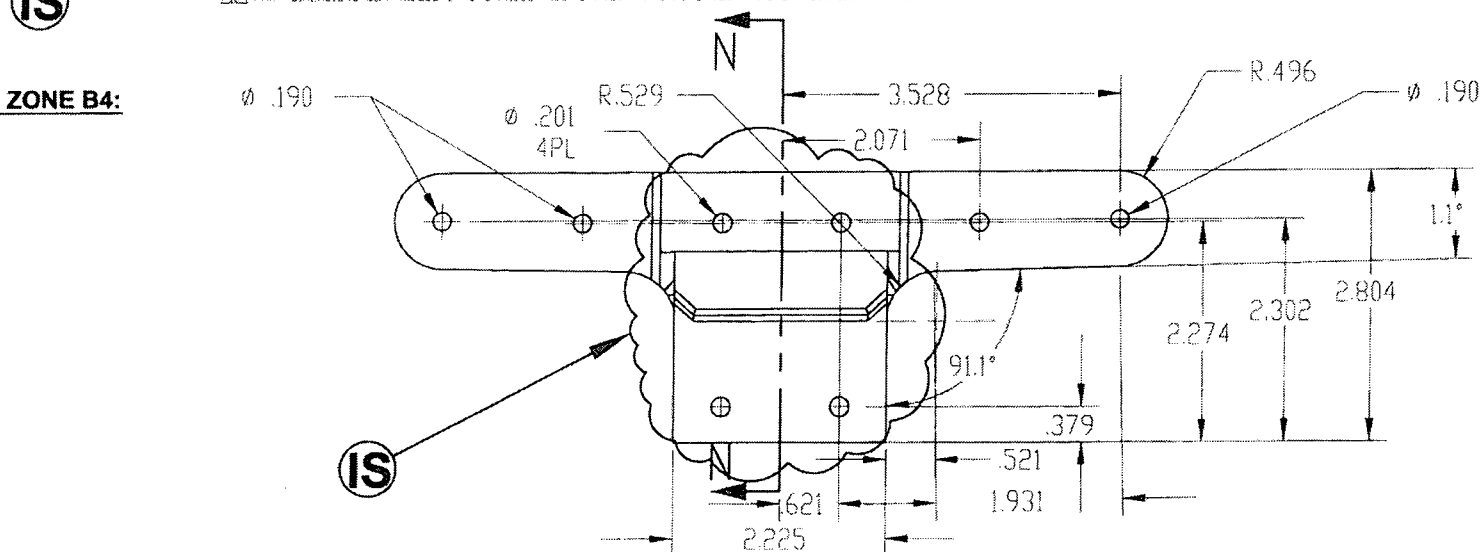
9 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE 6479314 RETAINER BRACKET SLDPRI, LAST MODIFIED 09-26-11

10 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 6479315 RECEPTACLE BRACKETS:DPRT. LAST MODIFIED 10-19-11

13 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE 6479815 LANCER BRACKET SLDPR1, LAST MODIFIED 06-22-19

12 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE 6479317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10

SHEET 7, ZONE B4:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM					<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

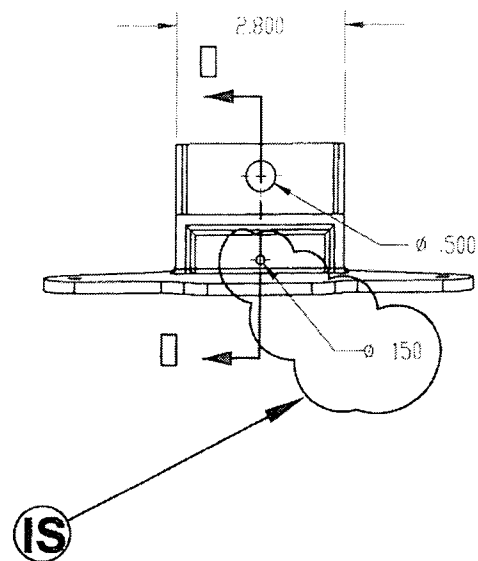
94458

APICAL INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03209

SHEET 2 OF 2

SHEET 8, ZONE B5:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION

94458

THE INFORMATION CONTAINED ON THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES INC.

REV	DESCRIPTION	DATE	APPROVED
1	INITIAL PRODUCTION RELEASE PER		
2	REVISION		

NOTES: UNLESS OTHERWISE SPECIFIED

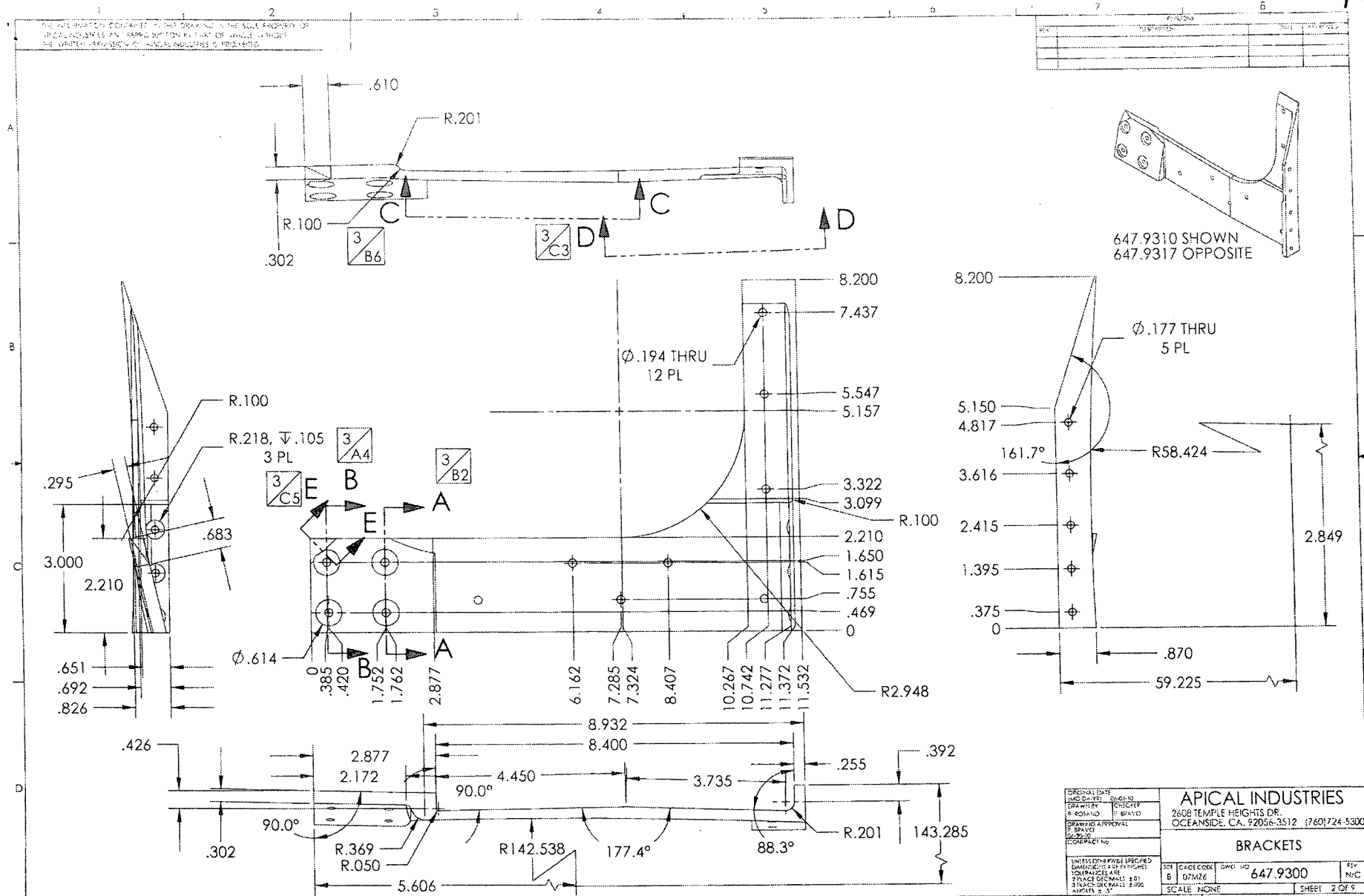
1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR: BLACK; PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J TYPE I, CLASS N.
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120. LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.
5. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
6. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
7. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
8. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
11. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CROSSBAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
12. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.

UNINCORPORATED ECN(s)

03209, 03706

	647.9317	RH BRACKET	△	△	△
	647.9316	CROSSBAR BRACKET	△	△	△
	647.9315	RECEPTACLE BRACKET	△	△	△
	647.9314	RETAINER BRACKET	△	△	△
	647.9313	BRACKET	△	△	△
	647.9312	BRACKET	△	△	△
	647.9311	SUPPORT BRACKET	△	△	△
	647.9310	LH BRACKET	△	△	△
FIND #	PART #	DESCRIPTION	MAT'L	SPEC.	
PARTS LIST					
QTY	DESCRIPTION	DATE	BY	REV	
NEXT ASSY (S)	647.8900	06/21/10	W. KOWALSKI	1	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES					
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300					
BRACKETS					
REV	DATE	BY	REV	DATE	BY
B	07/16	W. KOWALSKI	1	06/21/10	W. KOWALSKI
SCALE: NONE					
SHEET 1 OF 6					

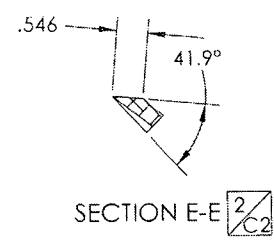
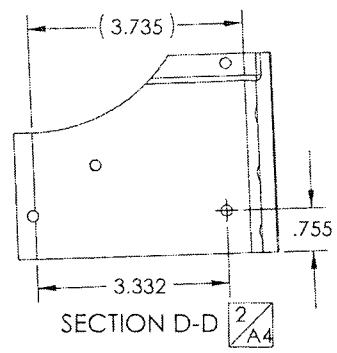
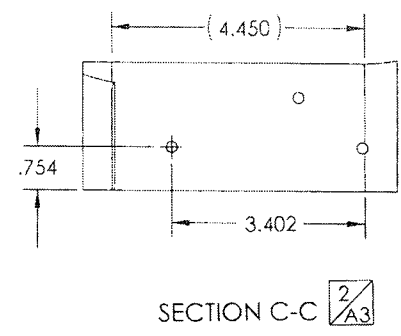
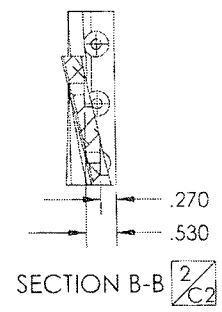
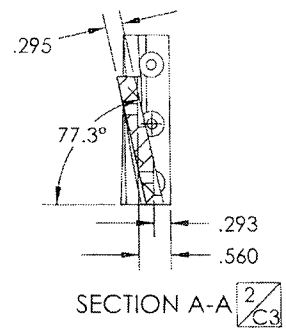
THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED AND THE SOLE PROPERTY OF
SPACED SYSTEMS, AN APPROVED CONTRACTOR OF THE U.S. ARMY. IT IS TO BE
THE PRIVATE POSSESSION OF INDIVIDUALS AND NOT TO BE REPRODUCED.



94458

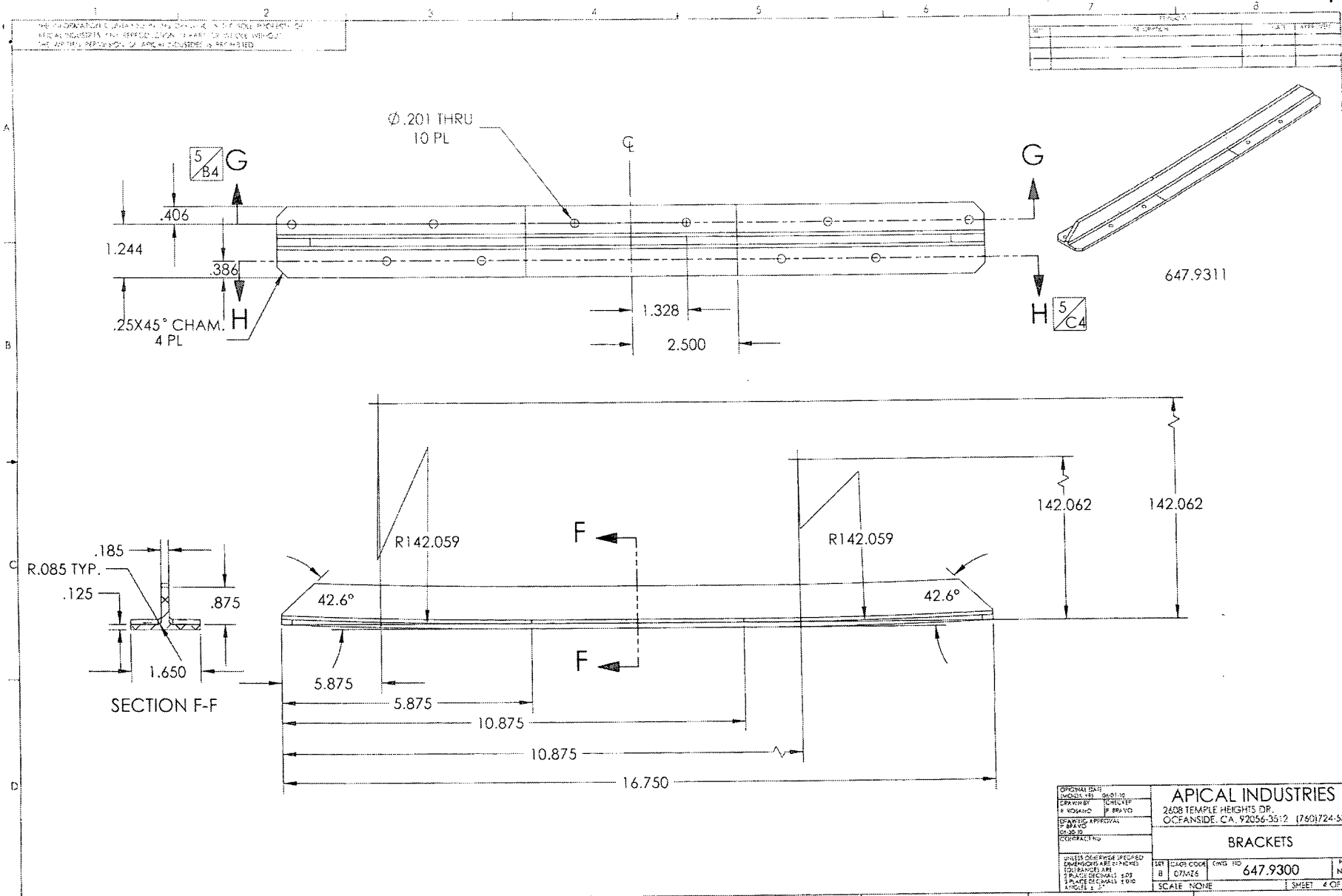
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES
FRACTIONS AND DECIMALS TO THREE PLACES UNLESS NOTED OTHERWISE
THE REPRODUCTION OF THIS DRAWING IS PROHIBITED

REV	DESCRIPTION	DATE	BY



ORIGINAL DATE		APICAL INDUSTRIES	
DESIGNED BY	DESIGNED	2608 TEMPLE HEIGHTS DR.	
P. KOSAK	P. BLAVO	OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL		BRACKETS	
P. BLAVO			
UNLESS OTHERWISE SPECIFIED		SIZE	REV
DIMENSIONS ARE IN INCHES		B	N/C
TOLERANCES ARE:		CASE CODE	647.9300
2 PLACES DECIMALS 10:		SCALE	NONE
3 PLACES DECIMALS 100:		SHEET 3 OF 9	
ANGLES 1/2°			

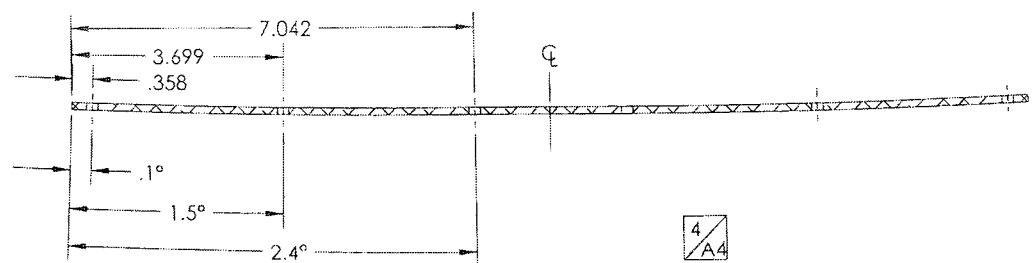
94458



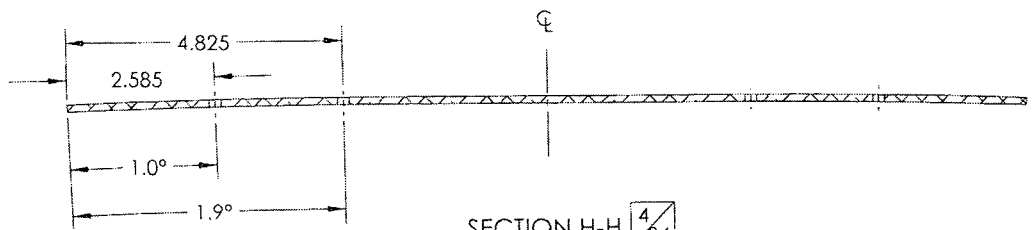
94458

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REV	DESCRIPTION	DATE	BY



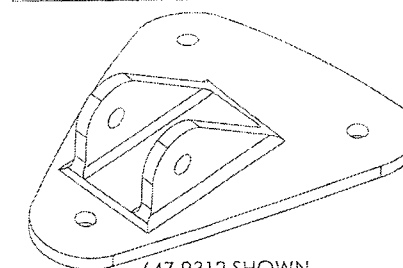
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A4



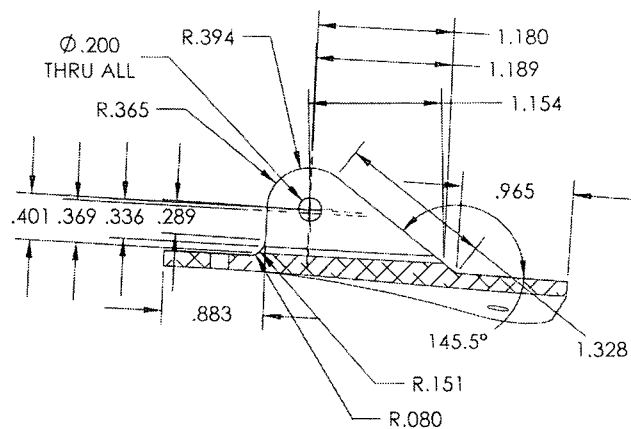
4
B4

ORIGINAL DATE DESIGNED BY DRAWN BY CHECKED BY IN CHARGE P. BRAND CONTRACT NO.		APICAL INDUSTRIES 2408 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
UNITS: DIMENSIONS SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ± .01 2 PLACE DECIMALS ± .005 ANGLES ± .1°		SET B	DWG NO. 647.9300
SCALE: NONE		SHEET 1	OF 9

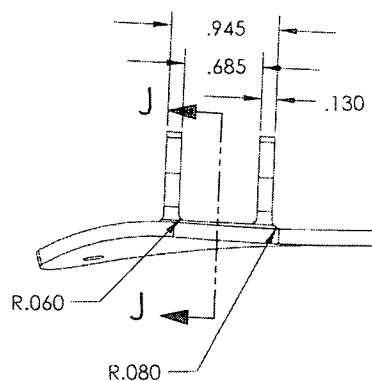
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THE WRITTEN PERMISSION OF AFRICAN INDUSTRIES IS PROHIBITED



647.9312 SHOWN
647.9313 OPPOSITE



SECTION J-J



DESIGNED BY: DAVID W.		DATE: 08/01/00	
DRAWN BY: DAVID W.		CHECKED BY: DAVID W.	
PROJECT NO: 123456		REVISED NO: 001	
REVISIONS: 001			
APPROVED BY: DAVID W.			
DATE: 08/01/00			
PROJECT NO: 123456			

APICAL INDUSTRIES

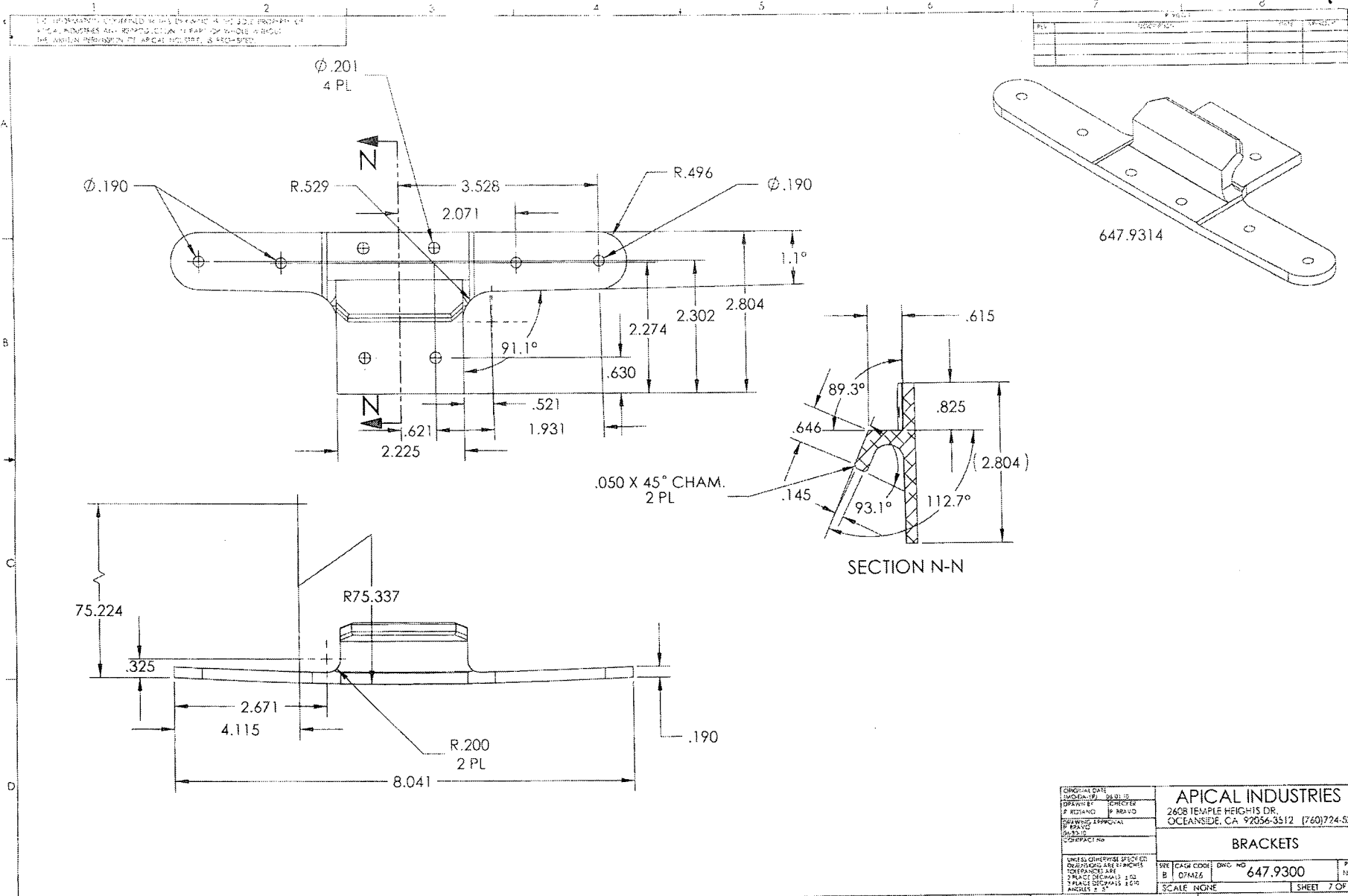
2608 TEMPLE HEIGHTS DR.

OCEANSIDE, CA 92036-3512 (760)724-5300

BRACKETS

NO	PART CODE	QTY	NO	REV
B	17426	647.9300		
SCALE: NONE		SHEET 6 OF 9		

94458

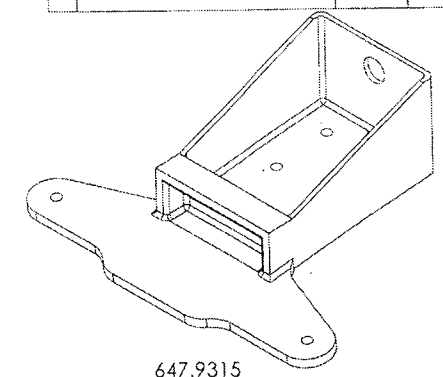
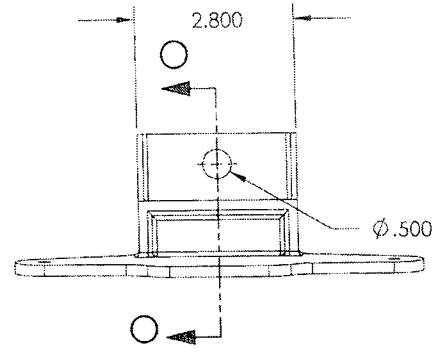
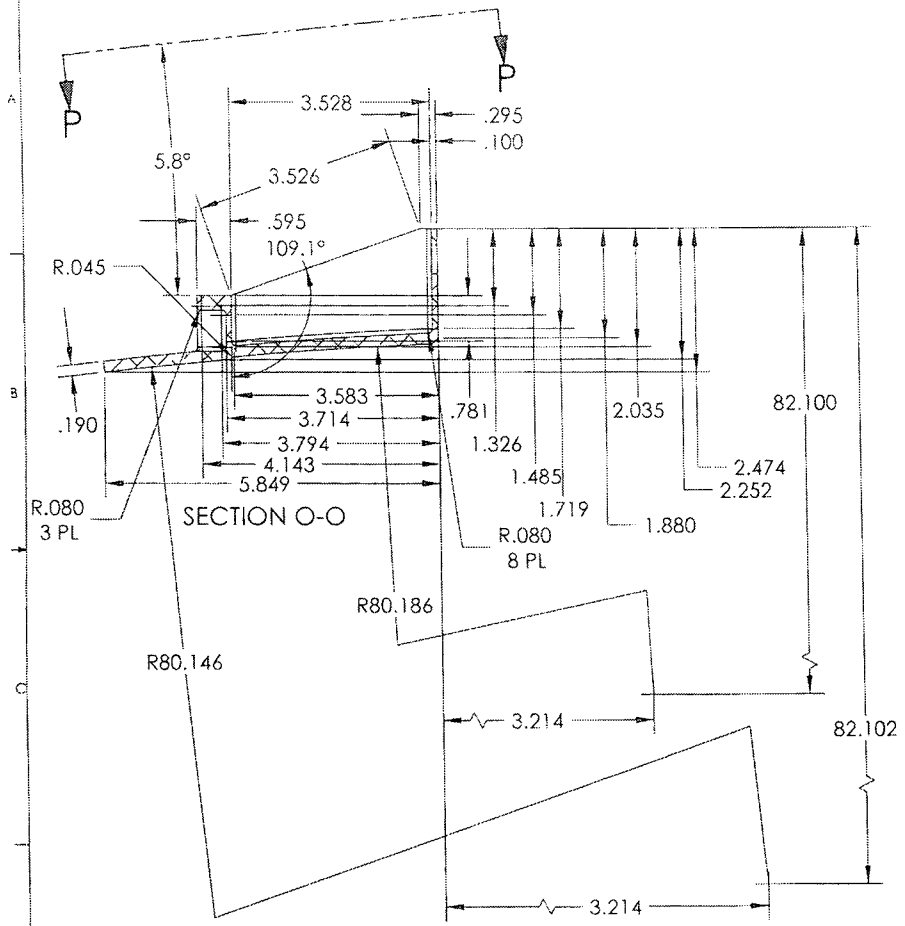


ORIGINAL DATE MODIFIED DATE DESIGNED BY P. RICHARD DRAWING APPROVAL P. RICHARD CONTRACT NO.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES .0005 .001 .01 .05 .1 .2 .5 .1 .1 .1		Dwg. No. 647.9300 SCALE: NONE	P/N N/C SHEET 7 OF 9

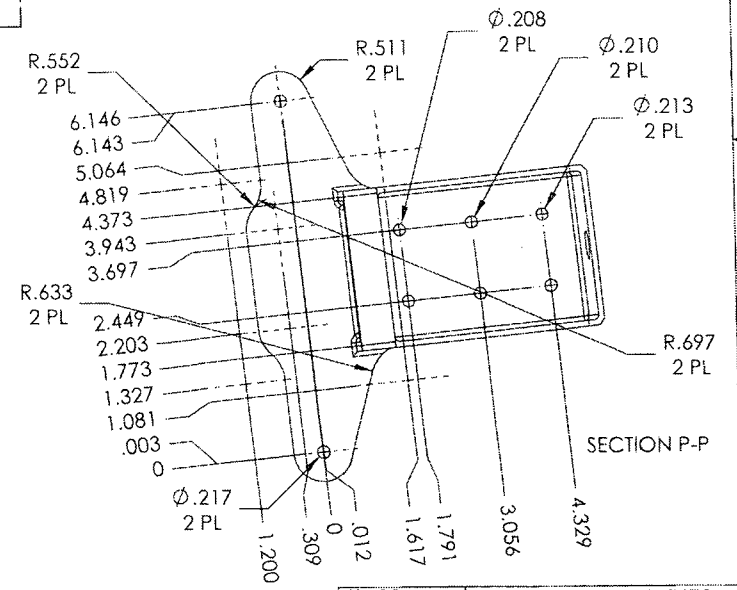
94458

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REV	DESCRIPTION	DATE	BY	CHKD
1	REVISED			



647.9315

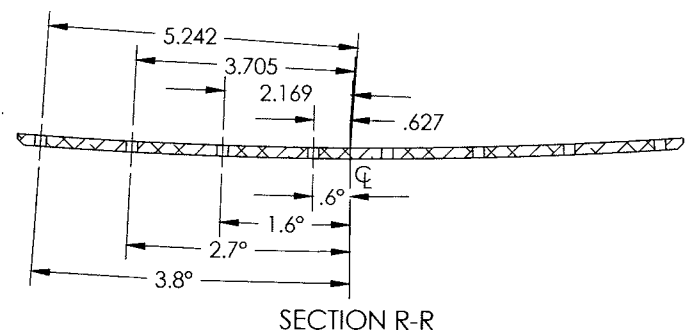
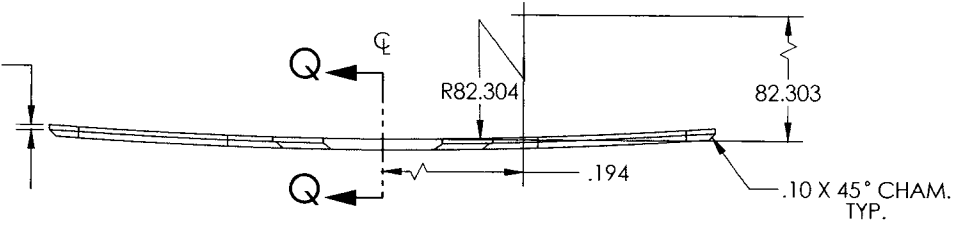
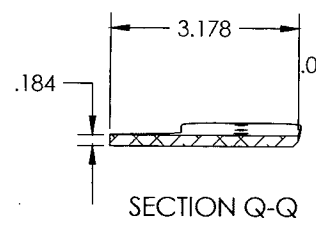
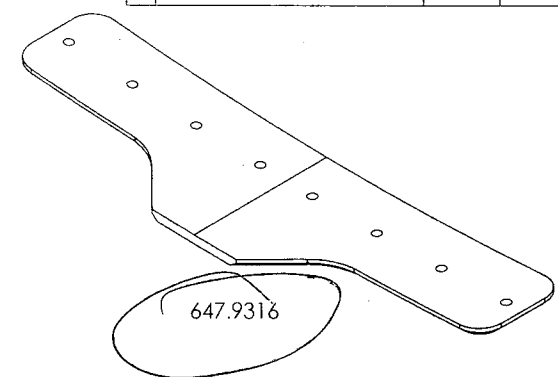
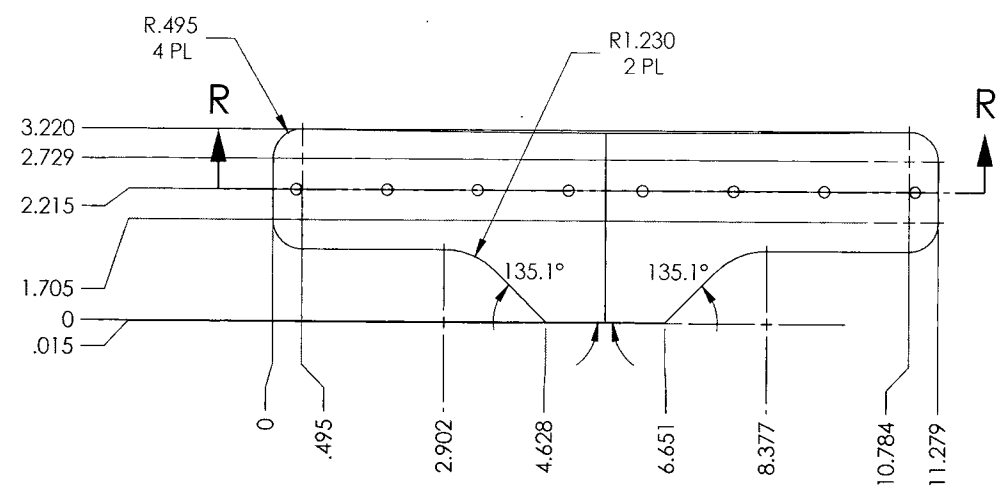


ORIGINAL (S) (1) (2) (3) (4) (5) DRAWN BY: [blank] & PLOTTED BY: [blank] DESIGNED BY: [blank] CHECKED BY: [blank] CONTRACT NO: [blank]		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE 2 PLACE DECIMALS UNLESS SPECIFICALLY NOTED ANGLES 2 PL		DET: [blank] CAD: [blank] B: 07/21/25 SCALE: NONE	REV: [blank] N/A SHEET 8 OF 9
BRACKETS			

94458

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REV.	DESCRIPTION	DATE	APPROVED



1.750 x 4.500

ORIGINAL DATE (DD-MN-YY) 06-01-10		APICAL INDUSTRIES	
DRAWN BY R. ROSANO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAVO		BRACKETS	
DRAWING APPROVAL P. BRAVO		SIZE B	REV. N/C
CONTRACT NO.		CAGE CODE 07M26	DWG. NO. 647.9300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS .003 3 PLACE DECIMALS .010 ANGLES .5°		SCALE NONE	SHEET 9 OF 9



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

OUTSTANDING PO REPRINT

Purchase Order ID PO19277

Purchase Order Date 3/7/2013

PO Print Date 11/20/2013

Page Number 1 of 1

Order From : VC-GLO001

ARCHER PRECISION INC.
2228 GLADWIN CRESENT
OTTAWA, ON K1B 4S6
CA

Ship To :

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613 899 2405

Vendor Fax

Vendor Account Nbr

Buyer

Brigitte Golden

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship Method

Day & Ross collect

Ship Acct

Line Nbr	Item ID Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable	Req Qty	List Price	Disc %	PO Unit Price	Extended Price
4	647.9317P AS PER DWG: 647.9300 B94680	RH Bracket	9/27/2013 Yes 9/27/2013	1.00 Each			\$340.0000	\$340.00
Line Total:								\$340.00
7	647.9316P SAME AS ABOVE	Crossbar Bracket	9/27/2013 Yes 9/27/2013	3.00 Each			\$190.0000	\$570.00
Line Total:								\$570.00
Outstanding PO Total:								\$910.00

Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer. No substitution or deviation without

Change Nbr: 7

Change Date: 10/4/2013



Ottawa, Ontario
K1B 4S6

Phone # 613-899-2405

Packing Slip

Date	Invoice #
12/11/2013	769

Ship To
Main Finished Goods Location Dart Aerospace 1270 Aberdeen Street Hawksbury, Ontario K6A 1K7

P.O. No.	Ship	Via	FOB	Project
19277	12/11/2013	delivered	Archer	

Qty	Item Code	Description
3	Sales	647.9316P HST (ON) on sales



2228 Gladwin Cres.
Ottawa, Ont.
K1B 4S6

Telephone (613) 899-2405
Fax (613) 226-1719

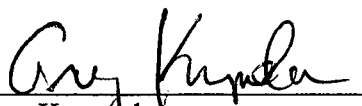
Certificate of Compliance

To:
Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury Ont.
K6A 1K7

10 December 2013

Po Number	Part Number	Quantities
19277	647.9316	3
(SEE NOTE ON ATTACHED DRAWING.)		

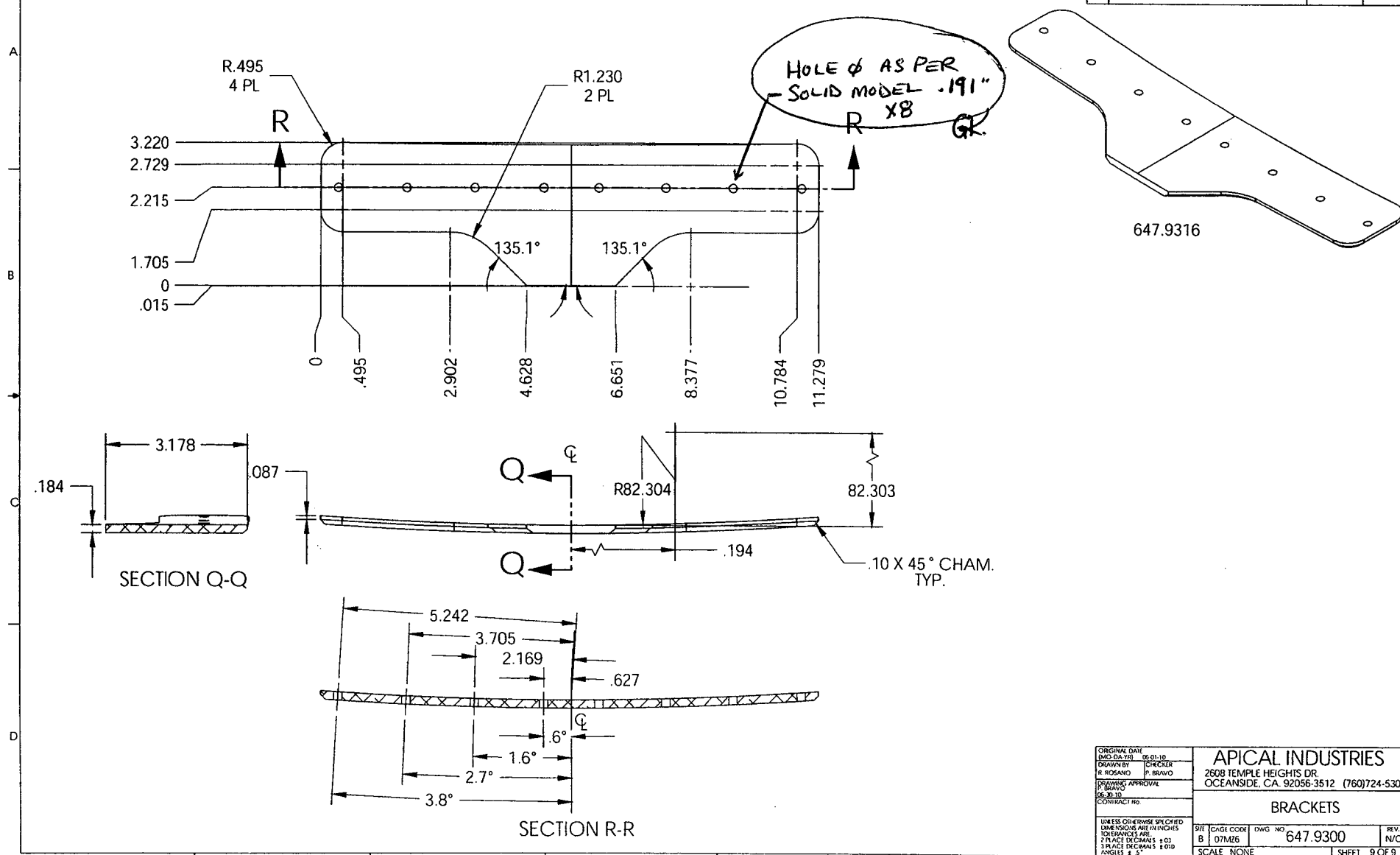
It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 19277 issued by Dart Aerospace Inc.


Greg Kumpula
Quality Inspector
Archer Precision Inc.
2228 Gladwin Cress.
Ottawa, Ontario
K1B 4S6

PO NO. 19277 - PART # 647.9316 - HOLE Ø WAS NOT DIMENSIONED
ON PDF FILE ∴ SOLID CAD MODEL
USED AS REF

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE (MM/DD/YY) 06/01/10		APICAL INDUSTRIES	
DRAWN BY R. ROSANO		2608 TEMPLE HEIGHTS DR.	
CHECKED BY P. BRAVO		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVED BY P. BRAVO		BRACKETS	
CONTRACT NO.		DWG NO. 647.9300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.5°		SHEET 9 OF 9	REV. N/C



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62865

Date: 30-Jan-14

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To


DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST 8 PCS D2224 (2.00) RED ANODIZE MIL-A-8625 TYPE II CLASS 2 20 PCS 646.3110 (10.65) 9 PCS 646.3210 (14.35) 12 PCS 646.3310 (18.10) 12 PCS 646.9712 (14.50) 10 PCS 647.0310 (11.10) 10 PCS 647.9314 (11.05) <u>3 PCS 647.9316 (10.00)</u> 15 PCS 647.9610 (16.05) 20 PCS 647.9612 (16.05) 12 PCS 649.5312 (10.15) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20140079	Line:	
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE: <u>30/1/14</u>			
CERTIFIED SIGNATURE: <u></u>			
RECEIVER SIGNATURE: _____			



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO22580

Purchase Order Date 1/10/2014

PO Print Date 1/30/2014

Page Number 5 of 7

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

12	108833	647.9314 RETAINER BRACKET	1/24/2014	4.00	\$11.05	\$44.20
----	--------	------------------------------	-----------	------	---------	---------

Yes

1/31/2014

SAME AS ABOVE

Line Total: \$44.20

13	95527	647.9316 CROSSBAR BRACKET	1/24/2014	3.00	\$10.00	\$30.00
----	-------	------------------------------	-----------	------	---------	---------

Yes

1/31/2014

SAME AS ABOVE

Line Total: \$30.00

14	102825	647.9610 LH FWD WIPER DEFLECTOR	1/24/2014	15.00	\$16.05	\$240.75
----	--------	------------------------------------	-----------	-------	---------	----------

Yes

1/31/2014

SAME AS ABOVE

Line Total: \$240.75

Note:

1/30/2014